FCC Information and Copyright

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. There is no guarantee that interference will not occur in a particular installation.

The vendor makes no representations or warranties with respect to the contents here of and specially disclaims any implied warranties of merchantability or fitness for any purpose. Since our products are under continual improvement, we reserve the right to make changes without notice.

Contents

Layout of P4VTB (only for version 1.x).....3

Layout of P4VTB (only for version 7.x).....4

English.....5

- 1. P4VTB Features.....5
- 2. Package contents.....6
- 3. How to setup Jumper.....7
- 4. CPU Installation.....7
- 5. DDR DIMM Modules: DIMM1/ DIMM2.....8
- 6. Jumpers, Headers, Connectors & Slots.....9

Français.....17

- Caractéristiques de P4VTB.....17

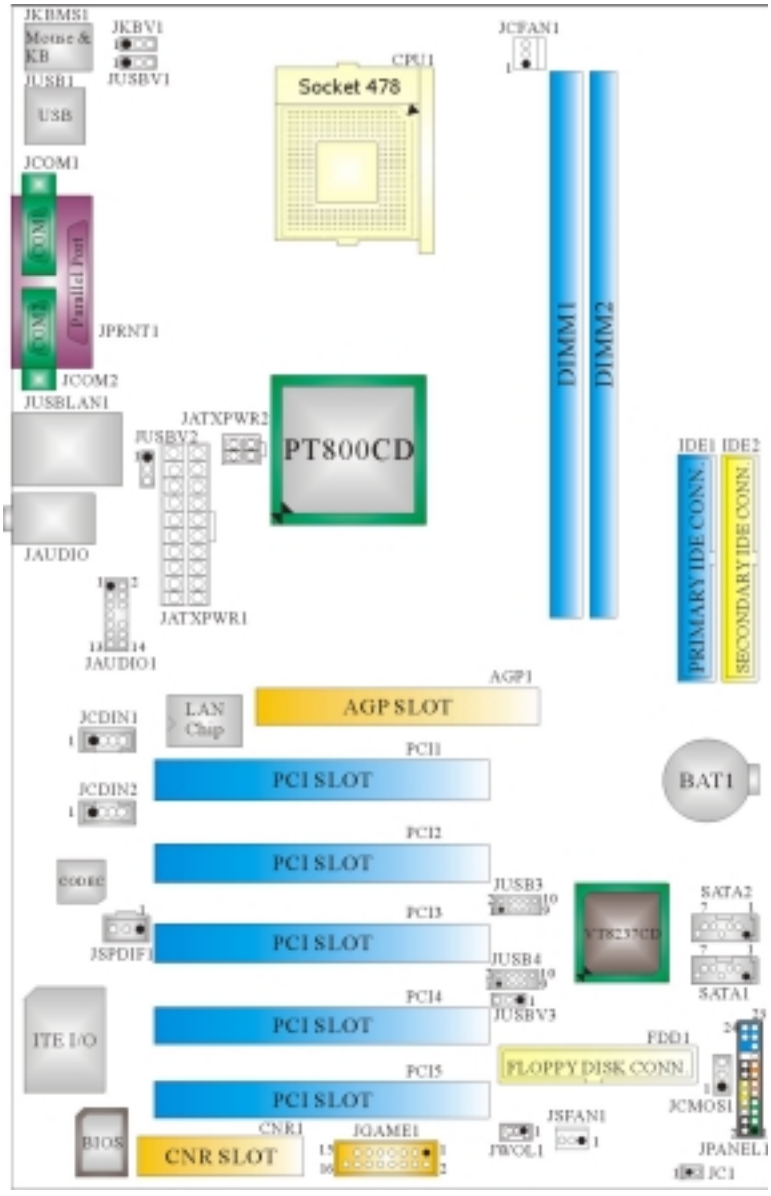
WarpSpeeder.....19

- Introduction.....19
- System Requirement.....19
- Installation.....20
- Usage.....21

Trouble Shooting.....29

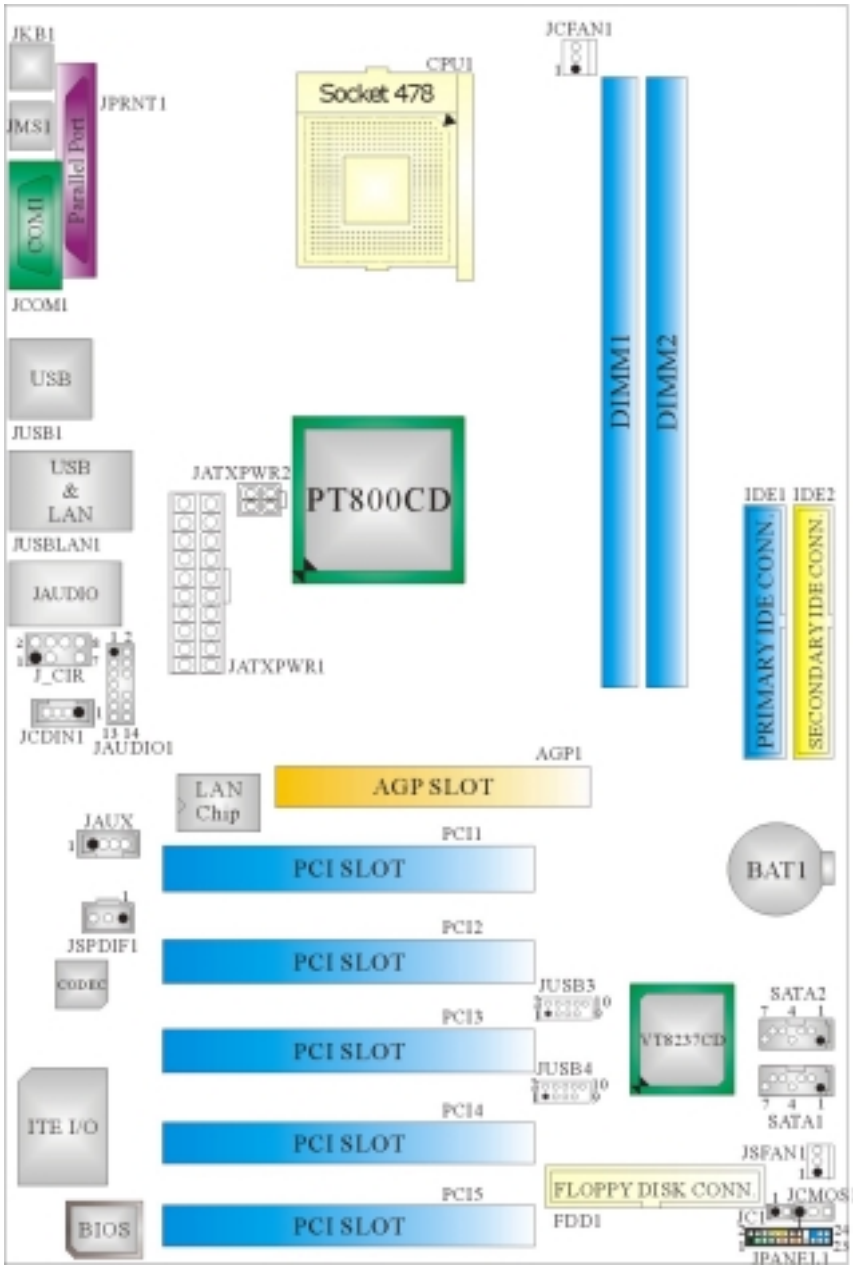
Dépannage.....31

Layout of P4VTB (only for version 1.x)



※NOTE: ●represents the first pin.

Layout of P4VTB (only for version 7.x)



English

1. P4VTB Features

A. Hardware

CPU
- Provides Socket 478.
- Supports Intel® Pentium® 4 Processor.
- Supports Intel® Pentium® 4 Prescott CPU. (only for versions 1.3 and 7.2)
- Front Side Bus at 400/533/800 MHz.

Chipset
- North Bridge: VIA PT800CD.
- South Bridge: VIA VT8237CD.

Main Memory
- Supports up to 2 DDR devices.
- Supports 200/266/333/400 MHz DDR devices.
- Maximum memory size of 2GB.

Super I/O
- Chip: ITE IT8705F.
- Low Pin Count Interface.
- Provides the most commonly used legacy Super I/O functionality.
- Environment Control initiatives
  - H/W Monitor
  - Fan Speed Controller
  - ITE's "Smart Guardian" software utility.

Slots
- Five 32-bit PCI bus master slots.
- One AGP slot.
- One CNR slot. (does not support on version 7.x)

On Board IDE
- Supports four IDE disk drives.
- Supports PIO Mode 4 and Ultra DMA 33/66/100/133 Bus Master Mode.

On Board AC'97 Sound Codec (only for version 1.x)
- Chip: CMI9739A.
- Compliant with AC'97 specification.
- AC'97 2.2 interface.
- Supports 6 channels.

On Board AC'97 Sound Codec (only for version 7.x)

- Chip: CMI9761A.
- Compliant with AC'97 specification.
- AC'97 2.2 interface.
- Supports 6 channels.
- Supports stereo microphone.

On Board Peripherals

a. Rear side

- 2 serial ports. (1 serial port only support on version 7.x)
- 1 parallel port. (SPP/EPP/ECP mode)
- Audio ports in vertical position.
- 1 LAN port.
- PS/2 mouse and PS/2 keyboard.
- 4 USB2.0 ports.

b. Front Side

- 1 floppy port supports 2 FDDs with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes.
- 4 USB2.0 ports.

Dimensions

- ATX Form Factor: 20.5 X 30.5cm. (W X L) (only for version 1.x)
- ATX Form Factor: 20.5 X 29.5cm. (W X L) (only for version 7.x)

B. BIOS & Software

BIOS

- Award legal Bios.
- APM1.2.
- ACPI.
- USB Function.

Software

- Supports Warpspeeder™, 9th Touch™, FLASHER™and WinFlasher™.
- Offers the highest performance for Windows 98 SE, Windows 2000, Windows Me, Windows XP, SCO UNIX etc.

2. Package contents

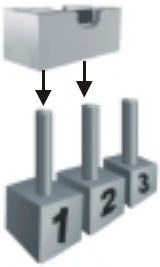
- HDD Cable X1
- FDD Cable X1
- User's Manual X1
- USB Cable X1 (optional)
- Rear I/O Panel for ATX Case X1 (optional)
- Fully Setup Driver CD X1
- StudioFun! Application CD X1 (optional)

3. How to setup Jumper

The illustration shows how jumpers are setup. When the Jumper cap is placed on pins, the jumper is "***close***". If no jumper cap is placed on the pins, the jumper is "***open***". The illustration shows a 3-pin jumper whose pin 1and 2 are "***close***" when jumper cap is placed on these 2 pins.

Jumper close

Jumper open



Pin 1-2 close

4. CPU Installation

Step1: Pull the lever sideways away from the socket and then raise the lever up to a 90-degree angle.

Step2: Look for the white dot/cut edge. The white dot/cut edge should point towards the lever pivot. The CPU will fit only in the correct orientation.

Step3: Hold the CPU down firmly, and then close the lever.

Step4: Put the CPU fan on the CPU and buckle it. Connect the CPU fan power cable to the JCFAN1. This completes the installation.

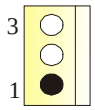
Step1

Step2

Step3

Step4

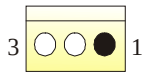
CPU Fan Headers: JCFAN1



JCFAN1

Pin No.	Assignment
1	Ground
2	+12V
3	FAN rpm Rate Sense

System Fan Headers: JSFAN1



JSFAN1

Pin No.	Assignment
1	Ground
2	+12V
3	FAN rpm Rate Sense

5. DDR DIMM Modules: DIMM1/ DIMM2

DRAM Access Time: 2.5V Unbuffered DDR 200/266/333/400 MHz Type required.

DRAM Type: 64MB/ 128MB/ 256MB/ 512MB/ 1GB DIMM Module (184 pin)

Total Memory Size with Unbuffered DIMMs

DIMM Socket Location	DDR Module	Total Memory Size (MB)
DIMM1	64MB/128MB/256MB/512MB/1GB *1	Max is 2GB
DIMM2	64MB/128MB/256MB/512MB/1GB *1	

Only for reference

Installing DDR Module

1. Unlock a DIMM slot by pressing the retaining clips outward. Align a DIMM to the slot in the way that the notch of the DIMM matches the break of the slot.

2. Insert the DIMM firmly and vertically into the slot until the retaining clip snap back in place and the DIMM is properly seated.

6. Jumpers, Headers, Connectors & Slots

(1) Floppy Disk Connector: FDD1

The motherboard provides a standard floppy disk connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types. This connector supports the provided floppy drive ribbon cables.

(2) Hard Disk Connectors: IDE1/ IDE2

The motherboard has a 32-bit Enhanced PCI IDE Controller that provides PIO Mode 0~4, Bus Master, and Ultra DMA 33/ 66/ 100/ 133 functionality. It has two HDD connectors IDE1 (primary) and IDE2 (secondary).
The IDE connectors can connect a master and a slave drive, so you can connect up to four hard disk drives. The first hard drive should always be connected to IDE1.

(3) Peripheral Component Interconnect Slots: PCI 1-5

This motherboard is equipped with 5 standard PCI slots. PCI stands for Peripheral Component Interconnect, and it is a bus standard for expansion cards. This PCI slot is designated as 32 bits.

(4) Accelerated Graphics Port Slot: AGP1

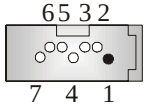
Your monitor will attach directly to that video card. This motherboard supports video cards for PCI slots, but it is also equipped with an Accelerated Graphics Port (AGP). An AGP card will take advantage of AGP technology for improved video efficiency and performance, especially with 3D graphics.

(5) Communication Network Riser Slot: CNR1 (does not support on version 7.x)

The CNR specification is an open Industry Standard Architecture, and it defines a hardware scalable riser card interface, which supports modem only.

(6) Serial ATA Connector: SATA1/ SATA2

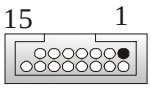
The motherboard has a PCI to SATA Controller with 2 channels SATA interface, it satisfies the SATA 1.0 spec and can transfer data with 1.5GHz speed.



SATA1/ SATA2

Pin	Assignment	Pin	Assignment
1	Ground	**2**	TX+
3	TX-	**4**	Ground
5	RX-	**6**	RX+
7	Ground		

(7) Game Header: JGAME1 (does not support on version 7.x)

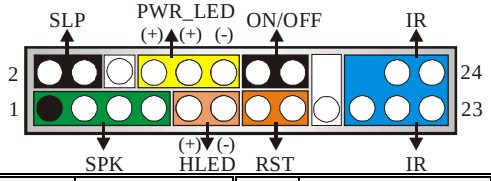


JGAME1

Pin	Assignment	Pin	Assignment
1	+5V	2	+5V
3	Joystick B Button 1	4	Joystick A Button 1
5	Joystick B Coordinate X	6	Joystick A Coordinate X
7	MIDI Output	8	Ground
9	Joystick B Coordinate Y	10	Ground
11	Joystick B Button 2	12	Joystick A Coordinate Y
13	MIDI Input	14	Joystick A Button 2
15	NA	16	+5V

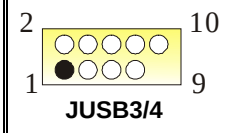
(8) Front Panel Connector: JPANEL1

JPANEL1



Pin	Assignment	Function	Pin	Assignment	Function
1	+5V	Speaker Connector	2	Sleep Control	Sleep Button
3	NA		4	Ground	
5	NA		6	NA	NA
7	Speaker		8	Power LED (+)	POWER LED
9	HDD LED (+)	Hard Drive LED	10	Power LED (+)	
11	HDD LED (-)		12	Power LED (-)	
13	Ground	Reset Button	14	Power Button	Power-on Button
15	Reset Control		16	Ground	
17	NA		18	KEY	
19	NA	IrDA Connector	20	KEY	IrDA Connector
21	+5V		22	Ground	
23	IRTX		24	IRRX	

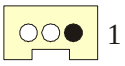
(9) Front USB Header: JUSB3/ JUSB4



JUSB3/4

Pin	Assignment	Pin	Assignment
1	+5V	**2**	+5V
3	USBN-	**4**	USBN-
5	USB+	**6**	USBP+
7	Ground	**8**	Ground
9	KEY	**10**	NA

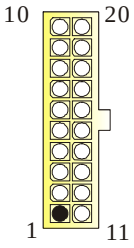
(10) Wake On LAN Header: JWOL1 (does not support on version 7.x)



JWOL1

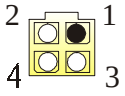
Pin	Assignment
1	+5V Standby
2	Ground
3	Wake up

(11) Power Connectors: JATXPWR1/ JATXPWR2



JATXPWR1

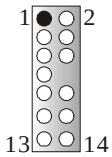
PIN	Assignment	PIN	Assignment
1	+3.3V	11	+3.3V
2	+3.3V	12	-12V
3	Ground	13	Ground
4	+5V	14	PS_ON
5	Ground	15	Ground
6	+5V	16	Ground
7	Ground	17	Ground
8	PW_OK	18	-5V
9	Standby Voltage +5V	19	+5V
10	+12V	20	+5V



JATXPWR2

PIN	Assignment	PIN	Assignment
1	+12V	**3**	Ground
2	+12V	**4**	Ground

(12) Front Panel Audio Header: JAUDIO1



JAUDIO1

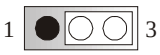
Pin	Assignment	Pin	Assignment
1	Mic In/ Center	**2**	Ground
3	Mic Power/ Bass	**4**	Audio Power
5	Right Line Out/ Speaker Out Right	**6**	Right Line Out/ Speaker Out Right
7	Reserved	**8**	Key
9	Left Line Out/ Speaker Out Left	**10**	Left Line Out/ Speaker Out Left
11	Right Line In/ Rear Speaker Right	**12**	Right Line In/ Rear Speaker Right
13	Left Line In/ Rear Speaker Left	**14**	Left Line In/ Rear Speaker Left

(13) Power Source Selection for Keyboard and Mouse: JKBV1 (does not support on version 7.x)

JKBV1	Assignment	Description
 Pin 1-2 close	+5V	+5V for keyboard and mouse
 Pin 2-3 close	+5V Standby Voltage	PS/2 Mouse and PS/2 Keyboard are powered with +5V standby voltage

Note: In order to support this function "Power-on system via keyboard and mouse", "JKBV1" jumper cap should be placed on pin 2-3.

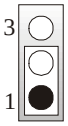
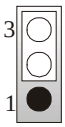
(14) Power Source Selection for USB: JUSBV1/ JUSBV2/ JUSBV3 (does not support on version 7.x)

JUSBV1/JUSBV2/ JUSBV3	Assignment	Description
 Pin 1-2 close	+5V	JUSBV1: 5V for USB located at the JUSB1 connector port JUSBV2: 5V for USB located at the JUSBLAN1 connector port JUSBV3: 5V for USB located at the JUSB3/4 connector ports
 Pin 2-3 close	+5V Standby Voltage	JUSBV1: JUSB1 port powered with standby voltage of 5V JUSBV2: JUSBLAN1 port powered with standby voltage of 5V JUSBV3: JUSB3/4 port powered with standby voltage of 5V

Note: 1. In order to support this function "Power-on system via USB device", "JUSBV1/ JUSBV2/ JUSBV3" jumper cap should be placed on pin 2-3 respectively.

2. If you are under S3 mode, we recommend you to select +5V Standby Voltage.

(15) Clear CMOS Jumper: JCMOS1

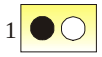
JCMOS1	Assignment
 Pin 1-2 Close	Normal Operation (default)
 Pin 2-3 Close	Clear CMOS Data

The following procedures are for resetting the BIOS password. It is important to follow these instructions closely.

※ Clear CMOS Procedures:

1. Remove AC power line.
2. Set the jumper to “Pin 2-3 close”.
3. Wait for five seconds.
4. Set the jumper to “Pin 1-2 close”.
5. Power on AC.
6. Reset your desired password or clear the CMOS data.

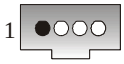
(16) Case Open Connector: JC1



JC1

Pin	Assignment
1	Case Open Signal
2	Ground

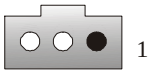
(17) CD-ROM Audio-In Header: JCDIN1/ (JCDIN2→only optional on version 1.x; does not support on version 7.x)



JCDIN1/ 2

Pin	Assignment
1	Left Channel Input
2	Ground
3	Ground
4	Right Channel Input

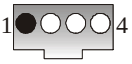
(18) Digital Audio Connector: JSPDIF1 (only optional on version 7.x)



JSPDIF1

Pin	Assignment
1	+5V
2	SPDIF_OUT
3	Ground

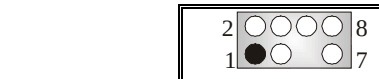
(19) Auxiliary Audio-In Connector: JAUX (only optional on version 7.x)



JAUX

Pin	Assignment
1	Left channel AUX_IN
2	CD_Ground
3	CD_Ground
4	Righ channel AUX_IN

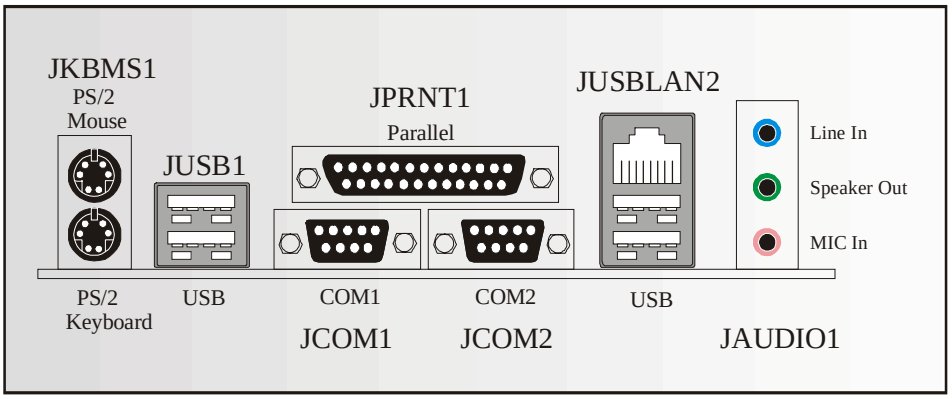
(20) Consumer Infrared Header: J_CIR (only optional on version 7.x)



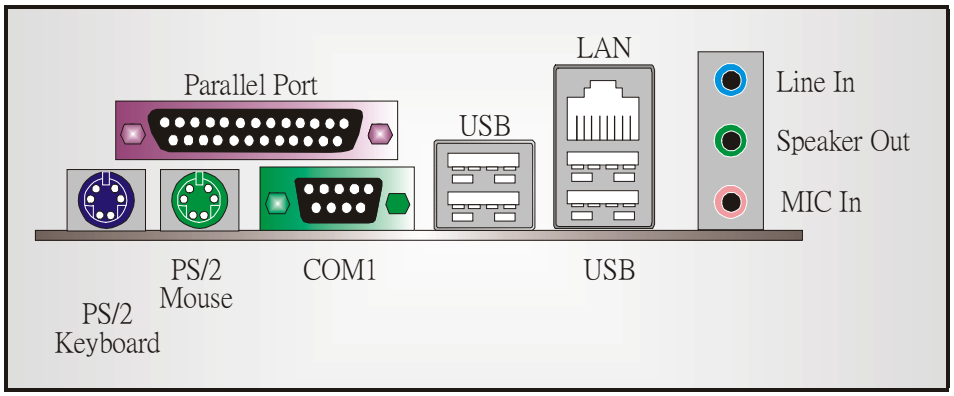
J_CIR

Pin	Assignment	Pin	Assignment
1	Ground	2	+5V Standby
3	CIRRX	4	CIRTX
5	Key	6	Power-on Button
7	SMBDT	8	SMBCK

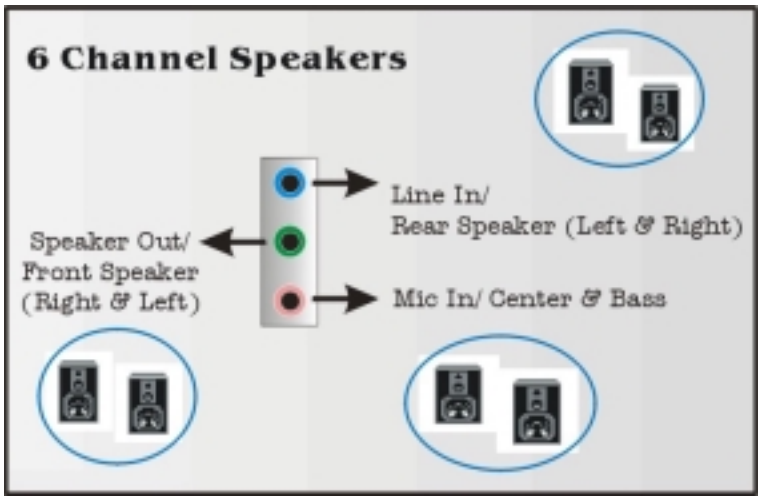
(21) Back Panel Connectors



- only for version 1.x



- only for version 7.x


6 Channel Speakers
Line In/
Rear Speaker (Left & Right)
Speaker Out/
Front Speaker
(Right & Left)
Mic In/ Center & Bass

Français

Caractéristiques de P4VTB

A. Matériel

Processeur
- Avec socket 478.
- Prise en charge du processeur Intel® Pentium® 4.
- Prise en charge du processeur Intel® 4 478 Prescott CPU.
- Bus frontal à 400/533/800 MHz.

Jeu de puces
- North Bridge : VIA PT800CD.
- South Bridge : VIA VT8237CD.

Mémoire principale
- Prise en charge de deux périphériques 2 DDR.
- Prise en charge des périphériques DDR 200/266/333/400 MHz (sans ECC).
- Taille maximale de la mémoire :2Go.

Super E/S
- Puce : ITE IT8705.

Fentes
- Cinq fentes Bus Master PCI à 32 bits.
- Une fente AGP.
- Une fente CNR. (ne supporte pas en version 7.x)

IDE intégré
- Prise en charge de quatre lecteurs de disque IDE.
- Prise en charge de PIO Mode 4 et Ultra DMA 33/66/100/133 Bus Master Mode.

AC'97 Sound Codec intégré (seulement pour version 1.x)
- Puce: CMI9739A.
- Conforme aux spécifications AC'97.
- Interface AC'97 2.2.
- Prise en charge de 6 canaux.

AC'97 Sound Codec intégré (seulement pour version 7.x)
- Puce : CMI9761A.
- Conforme aux spécifications AC'97.
- Interface AC'97 2.2.
- Prise en charge de 6 canaux.
- Prise en charge de la microphone stereo.

Périphériques intégrés

a. Côté arrière

- 2 ports série. (1 port série seulement pour version 7.x)
- 1 port parallèle (mode SPP/EPP/ECP)
- 1 port audio en position verticale.
- 1 port LAN.
- Souris PS/2 et clavier PS/2.
- 4 ports USB2.0.

b. Côté frontal

- 1 port disquette prenant en charge 2 FDD avec 360K, 720K, 1.2M, 1.44M et 2,88Mo.
- 4 ports USB2.0.

Dimensions

- Facteur de forme ATX : 20,5 x 30,5cm. (Larg x L)
- Facteur de forme ATX : 20.5 x 29.5cm. (Larg x L)

B. BIOS et logiciel

BIOS

- Award legal Bios.
- APM1.2.
- ACPI.
- Fonction USB.

Logiciel

- Prise en charge de Warpspeeder™, 9th Touch™, FLASHER™ et WinFlasher™.
- Offrant la meilleure performance pour Windows 98 SE, Windows 2000, Windows Me, Windows XP, UNIX series etc.

WarpSpeeder

Introduction

[WarpSpeeder™], a new powerful control utility, features three user-friendly functions including Overclock Manager, Overvoltage Manager, and Hardware Monitor.

With the Overclock Manager, users can easily adjust the frequency they prefer or they can get the best CPU performance with just one click. The Overvoltage Manager, on the other hand, helps to power up CPU core voltage and Memory voltage. The cool Hardware Monitor smartly indicates the temperatures, voltage and CPU fan speed as well as the chipset information. Also, in the About panel, you can get detail descriptions about BIOS model and chipsets. In addition, the frequency status of CPU, memory, AGP and PCI along with the CPU speed are synchronically shown on our main panel.

Moreover, to protect users' computer systems if the setting is not appropriate when testing and results in system fail or hang, [WarpSpeeder™] technology assures the system stability by automatically rebooting the computer and then restart to a speed that is either the original system speed or a suitable one.

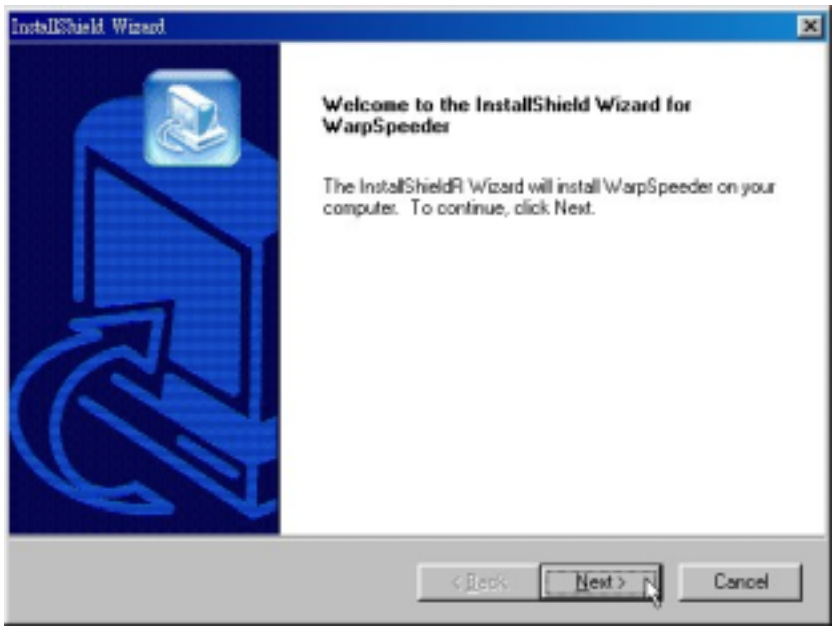
System Requirement

OS Support: Windows 98 SE, Windows Me, Windows 2000, Windows XP

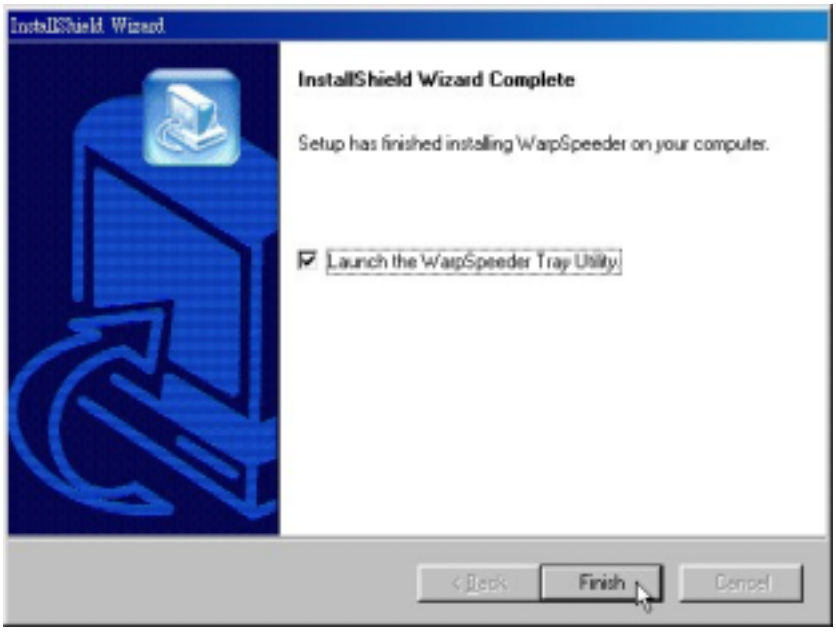
DirectX: DirectX 8.1 or above. (The Windows XP operating system includes DirectX 8.1. If you use Windows XP, you do not need to install DirectX 8.1.)

Installation

1. Execute the setup execution file, and then the following dialog will pop up. Please click “Next” button and follow the default procedure to install.



2. When you see the following dialog in setup procedure, it means setup is completed. If the “Launch the WarpSpeeder Tray Utility” checkbox is checked, the Tray Icon utility and [WarpSpeeder™] utility will be automatically and immediately launched after you click “Finish” button.



Usage

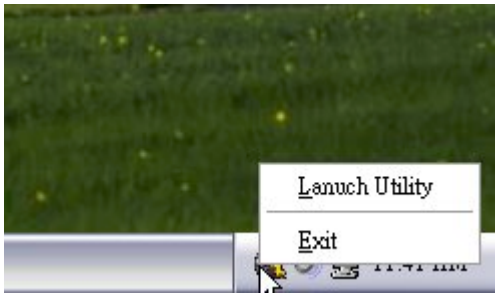
The following figures are just only for reference, the screen printed in this user manual will change according to your motherboard on hand.

[WarpSpeeder™] includes 1 tray icon and 5 panels:

1. Tray Icon:

Whenever the Tray Icon utility is launched, it will display a little tray icon on the right side of Windows Taskbar.

This utility is responsible for conveniently invoking [WarpSpeeder™] Utility. You can use the mouse by clicking the left button in order to invoke [WarpSpeeder™] directly from the little tray icon or you can right-click the little tray icon to pop up a popup menu as following figure. The “Launch Utility” item in the popup menu has the same function as mouse left-click on tray icon and “Exit” item will close Tray Icon utility if selected.



2. Main Panel

If you click the tray icon, [WarpSpeeder™] utility will be invoked. Please refer

do the following figure; the utility’s first window you will see is Main Panel.

Main Panel contains features as follows:

a. Display the CPU Speed, CPU external clock, Memory clock, AGP clock, and PCI clock information.

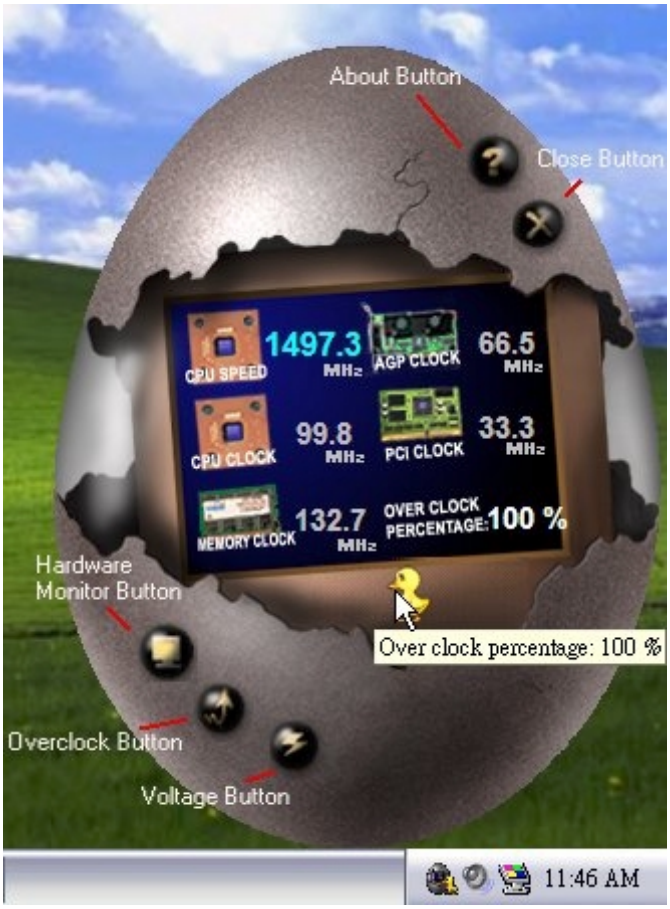
b. Contains About, Voltage, Overclock, and Hardware Monitor Buttons for invoking respective panels.

c. With a user-friendly Status Animation, it can represent 3 overclock percentage stages:

Duck walking => overclock percentage from 100% ~ 110 %

Duck running => overclock percentage from 110% ~ 120%

Duck burning => overclock percentage from 120% ~ above



3. Voltage Panel

Click the Voltage button in Main Panel, the button will be highlighted and the Voltage Panel will slide out to up as the following figure.

In this panel, you can decide to increase CPU core voltage and Memory voltage or not. The default setting is “No”. If you want to get the best performance of overclocking, we recommend you click the option “Yes”.

4. Overclock Panel

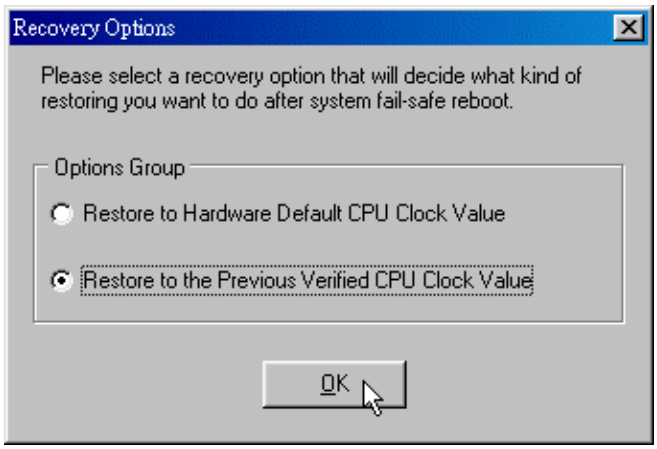
Click the Overclock button in Main Panel, the button will be highlighted and the Overclock Panel will slide out to left as the following figure.

Overclock Panel contains these features:

a. "–3MHz button", "-1MHz button", "+1MHz button", and "+3MHz button": provide user the ability to do real-time overclock adjustment.

Warning: Manually overclock is potentially dangerous, especially when the overclocking percentage is over 110 %. We strongly recommend you verify every speed you overclock by click the Verify button. Or, you can just click Auto overclock button and let [WarpSpeeder™] automatically gets the best result for you.

b. "Recovery Dialog button": Pop up the following dialog. Let user select a restoring way if system need to do a fail-safe reboot.



d. "Auto-overclock button": User can click this button and [WarpSpeeder™] will set the best and stable performance and frequency automatically. [WarpSpeeder™] utility will execute a series of testing until system fail. Then system will do fail-safe reboot by using Watchdog function. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

e. "Verify button": User can click this button and [WarpSpeeder™] will proceed a testing for current frequency. If the testing is ok, then the current frequency will be saved into system registry. If the testing fail, system will do a fail-safe rebooting. After reboot, the [WarpSpeeder™] utility will restore to the hardware default setting or load the verified best and stable frequency according to the Recovery Dialog's setting.

Note: Because the testing programs, invoked in Auto-overclock and Verify, include DirectDraw, Direct3D and DirectShow tests, the DirectX 8.1 or newer runtime library is required. And please make sure your display card's color depth is High color (16 bit) or True color(24/32 bit) that is required for Direct3D rendering.

5. Hardware Monitor Panel

Click the Hardware Monitor button in Main Panel, the button will be highlighted and the Hardware Monitor panel will slide out to left as the following figure.

In this panel, you can get the real-time status information of your system. The information will be refreshed every 1 second.

6. About Panel

Click the About button in Main Panel, the button will be highlighted and the About Panel will slide out to up as the following figure.

In this panel, you can get model name and detail information in hints of all the chipset that are related to overclocking. You can also get the mainboard's BIOS model and the Version number of [WarpSpeeder™] utility.

Note: Because the overclock, overvoltage, and hardware monitor features are controlled by several separate chipset, [WarpSpeeder™] divide these features to separate panels. If one chipset is not on board, the correlative button in Main panel will be disabled, but will not interfere other panels' functions. This property can make [WarpSpeeder™] utility more robust.

Trouble Shooting

PROBABLE CAUSE	SOLUTION
No power to the system at all; power light doesn't illuminate; fan inside power supply does not turn on. Indicator light on keyboard does not turn on.	* Make sure power cable is securely plugged in. * Replace cable. * Contact technical support.

PROBABLE CAUSE	SOLUTION
System inoperative. Keyboard lights are on, power indicator lights are lit, and hard drive is spinning.	* Using even pressure on both ends of the DIMM, press down firmly until the module snaps back in places.

PROBABLE CAUSE	SOLUTION
System does not boot from hard disk drive, but it can be booted from CD-ROM drive.	* Check cable running from disk to disk controller board. Make sure both ends are securely plugged in; check the drive type in the standard CMOS setup. * Backing up the hard drive is extremely important. All hard disks are capable of breaking down at any time.

PROBABLE CAUSE	SOLUTION
System only boots from CD-ROM. Hard disk can be read and applications can be used but booting from hard disk is impossible.	* Back up data and applications files. Reformat the hard drive. Re-install applications and data using backup disks.

PROBABLE CAUSE	SOLUTION
Screen message says "Invalid Configuration" or "CMOS Failure."	* Review system's equipment. Make sure correct information is in setup.

PROBABLE CAUSE	SOLUTION
Cannot boot system after installing second hard drive.	* Set master/slave jumpers correctly. * Run SETUP program and select correct drive types. Call drive manufacturers for compatibility with other drives.

PROBABLE CAUSE	SOLUTION
Error message reading "SECTOR NOT FOUND" or other error messages not allowing certain data to be retrieved.	* Back up any salvageable data. Then, low-level format, partition, and high-level format the hard drive. Re-install all saved data when completed.

PROBABLE CAUSE	SOLUTION
Scree is blank.	* Check the power connectors to monitor and to system. Make sure monitor is connected to display card.

PROBABLE CAUSE	SOLUTION
Screen goes blank periodically.	* Disable screen saver.

PROBABLE CAUSE	SOLUTION
Memory problem.	* Reboot computer. Reinstall memory, and make sure that all memory modules are installed in correct sockets.

PROBABLE CAUSE	SOLUTION
Computer virus.	* Use anti-virus programs to detect and clean viruses.

PROBABLE CAUSE	SOLUTION
Keyboard failure.	* Reconnect keyborad. Check keys again. If no improvement, replace keyboard.

PROBABLE CAUSE	SOLUTION
No display on screen.	* If possible, connect monitor to another system. If no color still, replace monitor.

PROBABLE CAUSE	SOLUTION
C: drive failure.	* Check hard drive cable.

PROBABLE CAUSE	SOLUTION
Missing operating system on hard drive.	* Run setup and select correct drive type.

PROBABLE CAUSE	SOLUTION
Certain keys do not function.	* Replace keyboard.

PROBABLE CAUSE	SOLUTION
Keyboard is locked, no keys function.	* Unlock keyboard.

Dépannage

PROBLÈME	SOLUTION
Pas d'alimentation au système. Les voyants lumineux ne s'allument pas, le ventilateur à l'intérieur du bloc d'alimentation ne se met pas en marche. Le voyant du clavier ne s'allume pas	* Assurez-vous que le câble d'alimentation est bien branché * Remplacez le câble * Contactez le service d'assistance technique.

PROBLÈME	SOLUTION
Le système ne fonctionne pas. Les voyants du clavier sont allumés, les voyants de l'alimentation aussi, le disque dur tourne.	* En exerçant une pression uniforme sur les deux extrémités du DIMM, poussez le module vers le bas jusqu'à ce qu'il s'enclenche.

PROBLÈME	SOLUTION
Le système ne se réinitialise pas du disque dur, réinitialisation possible depuis le lecteur CD-ROM.	* Vérifiez le câble du disque à la carte du contrôleur de disque. Assurez-vous que les deux extrémités sont bien branchées ; vérifiez le type de lecteur dans la configuration standard de CMOS. * Il est très important d'effectuer des sauvegardes du disque dur. Les disques durs peuvent tomber en panne à n'importe quel moment.

PROBLÈME	SOLUTION
Le système ne se réinitialise que depuis le CD-ROM. Le disque dur peut être lu et les applications sont utilisables mais il est impossible d'effectuer de réinitialisation depuis le disque dur.	* Effectuez une sauvegarde des fichiers des données et d'application. Reformatez le disque dur. Ré-installez les applications et les données sauvegardées sur les disques de secours.

PROBLÈME	SOLUTION
Un message s'affiche indiquant que la configuration n'est pas valide ou qu'il y a une panne du CMOS.	* Vérifiez l'équipement du système. Assurez-vous que les informations de la configuration sont correctes.

PROBLÈME	SOLUTION
Impossible de réinitialiser le système après l'installation d'un deuxième disque dur.	* Réglez les cavaliers maître/esclave correctement. * Exécutez le programme SETUP et sélectionnez les types de lecteur. Contactez les fabricants pour toute question de compatibilité avec les autres disques.

01/16/2004